Public Works (1909) Department.

G.O., No 266 J.
267

DATED 22-6 1909.

1029

The Notes
in this G.O. have been printed.

[Despatch Abstract.]

Regulator shutters at Peranai Head Works, Madura Division

An estimate, amounting to Rs.17,220, for altering the existing gearing arrangements of .... approved and a copy of the proceedings together with the plan and estimate for the work ordered to be forwarded to the Government of India for early sanction.

Regulator shutters at Peranai Head Works, Madura Division

Approving an estimate, amounting to Rs.17,220, for altering the existing gearing arrangements of .... and forwarding for early sanction a copy of the proceedings together with the plan and estimate for the work.

C.S.

[P. W. 9. / 2,000—8-7-07.]

Indexed.

28/6/09

MCL
22/6

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Government of Madras.

PUBLIC WORKS DEPARTMENT

IRRIGATION.
ACCOUNT.

Recd.	1909.	*Enclosures*
Regd.		*Spare copies*

G.O., Nos. 266, 267 I., 22nd June 1909.

Regulator shutters at Peranai Head Works, Madura Division

Approving an estimate, amounting to Rs. 17,220, for altering the existing gearing arrangements of — and forwarding for early sanction a copy of the Proceedings together with the plan and estimate for the work.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following papers :—

I

Inspection Notes of the Chief Engineer for Irrigation of the Periyar system from 8th to 19th February 1909. (G.O., No. 117 I., dated 12th March 1909.)

Peranai head works.—The gearings of the regulator shutters were reported some time ago to be working unsatisfactorily even after the original shafts had been replaced by stronger ones. Accordingly, further improvements have been made to the last two spans of the right bank of the river, which appear to be satisfactory. These improvements consist of a stronger rolled beam carrying the pedestals supporting the shaft and an increase in the number of pedestals from three to five.

Stronger rolled joists have also been fitted at the top of the roller paths to carry the winches and the gearing of the latter has also been changed so as to do away with the extra pedestal on the pier at the end of the shaft. All that now remains to be done to these spans, is the provision of steel joists across the piers, in order to transfer the weight which is now carried by the roller path channel iron to the masonry of the piers. When this is done, the whole arrangement is expected to be more rigid than in the original design.

It is also proposed to replace the Admiralty pattern chains by which the shutters and counter-weights are suspended by bicycle pattern chains which experience has shown to be more suitable, owing to the fact that the former are not true to gauge and do not therefore work smoothly with the sprocket wheels. An estimate has been prepared for Rs. 13,000 for effecting similar improvements to the above, to all the spans, and this should be sent up for sanction as soon as possible so as to enable the work to be carried out during the coming closure.

* * * * *

II

Letter—from H. E. CLERK, Esq., Superintending Engineer, VI Circle.
To—the Chief Engineer for Irrigation.
Dated—Trichinopoly, the 7th May 1909.
No.—375 C.E.

As called for in your inspection notes communicated to me with G.O., No. 117 I., dated 12th March 1909, and with reference to the correspondence ending with your Memorandum No. 1291, dated 5th April 1909, I have the honour to forward herewith for your approval and sanction of Government an estimate, amounting to Rs. 14,000, for the proposed alterations to the gearing arrangement of the shutters of the regulator at the head works at Peranai. As explained in the report the alterations consist in putting in deeper beams and shorter pedestals to support the horizontal shafts and in substituting bicycle pattern chains for those of the Admiralty pattern now in use.

2. The report attached to the estimate explains the necessity for and the details of the works proposed.

3. The work will be completed before the end of March 1910.

4. The Executive Engineer has been asked to report the cost of the existing arrangements and see if under Public Works Code paragraph 1921 the whole estimate may be sanctioned under 42. Major Works—Working Expenses.

The rates entered in the estimate are fair and the estimate is recommended for very early sanction.

ENCLOSURES.

Report to accompany the estimate for the proposed alterations to the gearing arrangements of the Regulator shutters at Peranai Head Works, Periyár System.

	RS.
Amount of estimate	14,000

The work is one called for in the Chief Engineer's (Irrigation) inspection notes of February 1909.—The winches and gearing by means of which the Smart's gates of the Peranai regulator are worked have never been satisfactory.

In March 1906 during the first visit of the undersigned to Peranai it was found that the horizontal shafts which hoisted the gates had been bent at the ends. Mr. Basket, the General Foreman of the Madras Public Works Department Workshops, was sent to examine the regulator. He recommended that the existing 3″ diameter shafts be replaced by new 4¼″ diameter shafts and he also recommended that the single 12″ deep girders which supported the horizontal shafts be changed for 16″ deep girders. These alterations were carried out, but the gates did not yet work well. It was then found that the gearing and shafts had not originally been built true with the gates. This latter defect was remedied; the gates worked better, but they still shook the masonry of the piers.

Finally the General Superintendent of the Public Works Workshops recommended that double girders be used to support the shafts. These double girders would be supported on stiff channels 16″ deep instead of the old 6″ deep channels originally used.

He also recommended that bicycle pattern chains be used instead of the old Admiralty pattern chains. These recommendations were adopted and two spans of the regulator were altered accordingly. The cost of altering two spans was charged to the construction estimate "Remodelling the head works at Peranai—estimate Rs. 4,07,814 sanctioned in G.O., No. 814 I., "dated 26th July 1906, and Superintending Engineer's register No. 162 of 1906–07." That estimate has now been closed. As the new arrangements are very satisfactory it is proposed to adopt them for the eight remaining spans of the regulator.

The 16″ channels and rolled steel beams are available at site. New pedestals and new bicycle pattern chains alone will be required. Their cost has been fixed by the General Superintendent, Public Works Workshops. The cost of the labour required for replacing the gearing has been taken from actual figures already obtained from the alterations made to two of the gates.

The data for the masonry work are appended.

The descriptions of details are given in the plans themselves of which there are two sets accompanying. Plates A, B and C refer to the gearing arrangements as now proposed; L, D, E and F to those as existing. Plate G, is the sanctioned plan for remodelling the head works at Peranai in G.O., No. 814 I., dated 26th July 1906.

R. DeChazal,
Executive Engineer, Madura Division.

Letter—from the General Superintendent, Public Works Workshops.
To—the Executive Engineer, Madura Division.
Dated—the 4th December 1908.
No.—10/39 M. D. R.

With reference to your No. 1947 M., dated 23rd November 1908, I have the honour to inform you that the estimated cost of new pedestals on the double girders and new sprocket wheels for each span will be about Rs. 550, and that of providing new bicycle pattern chain for each span will be about Rs. 500.

As regards the cost of pulling down and reerecting the gearing and fixing double girders 16″ made up channels and cross girders for 8 spans, I think you are in a better position to estimate the same as it depends on the labour available at work site, etc., and one span has moreover been put up by you very recently.

III

Letter—from M. BROWN, Esq., Executive Engineer, Madura Division.
To—the Superintending Engineer, VI Circle, Trichinopoly.
Dated—the 28th May 1909.
No.—540 S.E.

With reference to your letter No. 2179, dated 4th/7th May 1909, I have the honour to state that it is difficult to arrive at the actual cost of the existing gearing arrangements now proposed to be altered, at the regulator works at Peranai, as the figures were adjusted from those given by the General Superintendent, Public Works Workshops, at different times. However, the approximate cost of the arrangement now proposed to be altered may be taken as Rs. 9,000 including all charges.

No. 462 *C.E.*, *dated* 8*th June* 1909.

Communicated to the Chief Engineer for Irrigation, for information with reference to paragraph 4 of this office letter No. 375, dated 7th May 1909.

H. E. CLERK,
Superintending Engineer, VI Circle.

IV

Note by the Chief Engineer for Irrigation.

The estimate received from the Superintending Engineer, VI Circle, with his above letter may be approved and forwarded to the Government of India for sanction, with reference to paragraph 1919 v (*a*) of the Public Works Department Code.

2. The Superintending Engineer reports that the approximate original cost of the old work is Rs. 9,000, which may be written back from the Capital to the Revenue Account of the Periyár system on receipt of sanction of the Supreme Government to the above estimate.

C. A. SMITH,
Chief Engineer for Irrigation.

14*th June* 1909.

Order—No. 266 I., dated 22nd June 1909.

The following estimate is approved :—

Imperial.
49. Capital.
I. Works.
1. Head Works.
C. Works.
Altering the existing gearing arrangements of shutters at Peranai Regulator.
Unremunerative Work.

Estimate—	RS.
I. Works	14,000
II. Establishment	3,220
Total ...	17,220

2. Ordered that a copy of these Proceedings, together with the plan and estimate for the work, be forwarded to the Government of India with a request that early sanction thereto may be accorded.

[Here enter No. 267 I., dated 22nd June 1909.]

(True Extract.)

C. A. SMITH,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation.
" Superintending Engineer, VI Circle.
" Examiner, Public Works Accounts.

Endorsement—No. 267 I., dated 22nd June 1909.

Forwarded.

(By Order.)

C. A. SMITH,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

PUBLIC WORKS DEPARTMENT
(IRRIGATION BRANCH).

NOTES CONNECTED WITH G.O., Nos. 266, 267 I., DATED 22ND JUNE 1909.

[SUBJECT.—*Regulator shutters at Peranai Head Works, Madura division.*]

From the Superintending Engineer, VI Circle, dated 7th May 1909, *No.* 375-*C.E.*

Under Secretary—

With reference to paragraph 1 of the inspection notes of Chief Engineer for Irrigation printed in G.O., No. 117 I., dated 12th March 1909, the Superintending Engineer submits an estimate amounting to Rs. 14,000 for the proposed alterations to the gearing arrangement for the Peranai regulator shutters. The alterations consist in the provision of built up channels and short pedestals for support of the shafts and bicycle pattern chain. It is stated that the same improvements that have been already made to the gearing arrangements to the two spans at the right bank of the river are found to work well and will be adopted for the remaining eight regulator shutters and that the new pedestals and new bicycle chain have only to be made, the other articles being available at site. It is further stated that the cost of labour required for replacing the gearing has been taken from actual figures already obtained from the alterations made to two of the gates.

For orders if the estimate may be checked for sanction.

KRISHNA RAU.
26-5-09.

The estimate is classed under '49' and it is stated that the Executive Engineer has been asked to report the cost of the original arrangement with a view to decide whether under paragraph 1921 of the Public Works Department Code, the estimate is to be classed under '49' or '42'.

M.S.V.
27-5-09.

T. W. S. SMYTH.
27-5-09.

Estimate may be checked.

C. A. SMITH.
27-5-09.

The estimate has been checked.

M.D.
9-6-09.

N.S.
9-6-09.

Letter from the Superintending Engineer, VI Circle, dated 8th June 1909, No. 462-C.E., reporting the approximate original cost of the old work.

Under Secretary—

A draft order on the above estimate is submitted and if approved, it may be circulated to His Excellency.

M.A.
10-6-09.

T.W.S.S.
12-6-09.

Under what Code rule is this writeback being made as I am inclined to doubt its correctness ?

C.A.S.
12-6-09.

Joint Secretary—

Under paragraph 1921 of the Public Works Department Code.

M.S.V.
12-6-09.

C.A.S.
14-6-09.

Note for His Excellency—

The file relates to an estimate of Rs. 17,220 for certain alterations to the gearing of the Peranai regulator.

2. The regulator was first brought into use in 1906, but the gearing of the Smart pattern lift shutters which was designed and executed in the Public Works Workshops, has not been found satisfactory, chiefly on account of its being too weak in certain parts.

3. Two of the shutters were accordingly fitted with improved gearing last year and having proved to be satisfactory, it is now proposed to alter the remainder in the same way. I may explain that the Smart shutters are of comparatively recent date and defects in their gearings have come to notice from time to time, and I think the workshops have now evolved a suitable pattern which is not likely to give trouble in future. Draft order submitted for approval.

C.A.S.
15-6-09.

A. L[AWLEY].
16-6-09.

Under Secretary—

Submitted that the draft order may now issue.

G.V.
16-6-09.

M.S.V.
16-6-09.

Issue.

T.W.S.S.
16-6-09.

[Issued as G.O., Nos. 266, 267 I., dated 22nd June 1909.]

6011

SUBJECT.— Peranai Regulator—altering the existing gearing arrangements of shutters at—

CURRENT No. 107/09 PASSED ON BY R. C. U. R. C. 21·6·09 REF. R. K. D. O.

PUBLIC WORKS DEPARTMENT,
IRRIGATION BRANCH.

CURRENT No. PASSED ON BY R. C. U. R. C. REF. R. K. D. O.

C. no. 107/09 Plans 7 Enclosures Others 2/9

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Print Extract para 1 of this

READ again the following

G.O. P.W.D. (Irrigation), dated 12 March 1909 No. 117-I

Read also

From the Superintending Engineer VI circle, d 9.5.1909 No. 375 C.G.

Print with report

do. do. do. d 8.6.1909 No. 462 C.E.

Print Notes

Note
To make the G.O. complete, we propose to print para 1 of S.E's report notes on the above.
N

Note by the Chief Engineer for Irrigation.

The Estimate received from the Superintending Engineer, VI circle, with his above letter may be approved and forwarded to the Government of India for sanction, with refce to para 1919 V(a) of the P.W.D. Code.

2. The Superintending Engineer reports that the approximate original cost of the old work is Rs. 9,000, which may be written back from the capital to the Revenue account of the Periyar system on receipt of sanction of the supreme Govt

3

3

Government to the above Estimate.

Irrigation Account

—

Order No. 2669 d/ 22nd June 1909

The following Estimate is approved:—

Imperial

49 Capital

I Works

1 Head works

C works

Altering the Existing gearing arrangements of Shutters at Peranai Regulator.

Unremunerative work

Estimate i works Rs 14,000

ii Establishment 3220

Total 17,220

2. Ordered that a copy of these Proceedings together with the plan and estimate for the work, ~~be~~ be forwarded to the Government of India with

16.6.09.

a request that early sanction thereto may be accorded.

—

Endorsement no. 2611.I. d 22nd June 1

Forwarded.

DESPATCHED
7 AUG 1909

[signature]
12/6/09

[initials]
14/6/09

DESPATCHED
28 JUL 1909

To
The Chief Engineer for Irrigation
- Superintending Engineer vi circle M.S. d 24/6/09.
- Examiner, P.W. accounts.

Ordinary Press.
Print Notes

[initials] 10.6.09
10.6.09

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